

HOW I DO IT

Intra-Abdominal Side-To-End Stapling Technique for Anterior Resection of Rectal Cancer

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INTRODUCTION

At present the most widely used reconstruction method after anterior resection is end-to-end anastomosis using the double stapling technique (DST). However, DST is intricate and hazardous in that an assistant is obliged to change his or her position to the buttocks of the patient when the anastomosing stapler is put into the rectum from the anal canal. Accordingly, the assistant is apt to be exposed to contamination during the procedure. Our method is simple, speedy, and clean because the assistant need not change position to put the anastomosing stapler into the intestine, and we can observe the inside of the rectum from the open end and irrigate with a large quantity of saline.

PROCEDURE

The purse-string suture is placed at the cut end of the rectum with a PURSTRING™ (Auto Suture Japan, To-

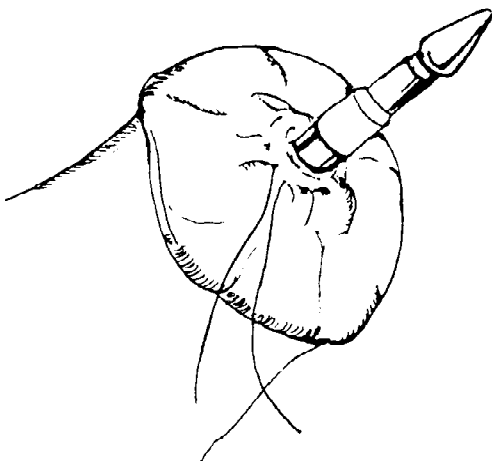


Fig. 1. A premium plus CEEA™ (Auto Suture Japan) anvil is inserted through the open, proximal end of the rectum. The anvil shaft is then tightly fixed to the rectum by the thread of the purse-string suture.

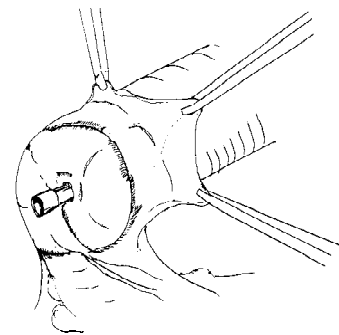


Fig. 2. The anastomosing stapler with a trocar is inserted through the open end of the colon. The antimesenteric wall of the colon is penetrated by the trocar ~5 cm from the cut end of the colon.

kyo) before resection of the rectum. We can observe and disinfect the inside of the rectum. An anvil of the appropriate size circular stapling device, the Premium plus Curved End to End Anastomosis (PCEEA™) (Auto Suture Japan) is released and inserted through the open, proximal end of the rectum. The anvil shaft is then tightly fixed to the rectum with the thread of the purse-string suture (Fig. 1).

The anastomosing stapler with a removable trocar is inserted through the open, distal end of the colon. The antimesenteric wall of the colon is penetrated by the trocar of the stapler ~5 cm from the cut end of the colon (Fig. 2). The fatty appendage at the anastomotic site should be removed before insertion of the trocar. The trocar is removed from the shaft of the stapler and the anvil shaft is mated to the stem of the stapler (Fig. 3). The

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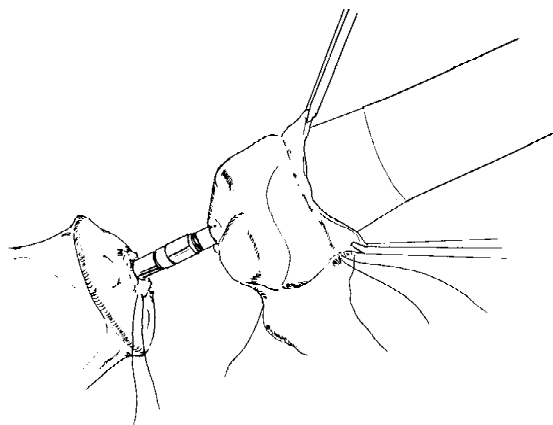


Fig. 3. The trocar is removed from the shaft of the stapler and the anvil shaft is mated to the stapler stem. The stapler is closed and fired.

stapler is closed and fired. After removal of the stapler, excised tissue rings are examined to determine whether anastomosis is complete. The open end of the colon is closed with a stapling device, the Premium Multifire

Thoracic Abdominal (PMTA®) (Auto Suture Japan). This completes the side-to-end anastomosis.

Forty-two patients with rectal cancer underwent reconstruction by this method with good results, including three patients with anastomotic leak (7%) and one patient with local recurrence. There were no patients with pelvic infection. The leak rate for DST is 7.3–9% [1,2]. The stapled Baker type, side-to-end anastomosis [3], is similar to DST with respect to putting the anastomosing stapler into the rectum from the anus. Our method differs from the Baker type in that our procedure is completed at the intra-abdominal space.

REFERENCES

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